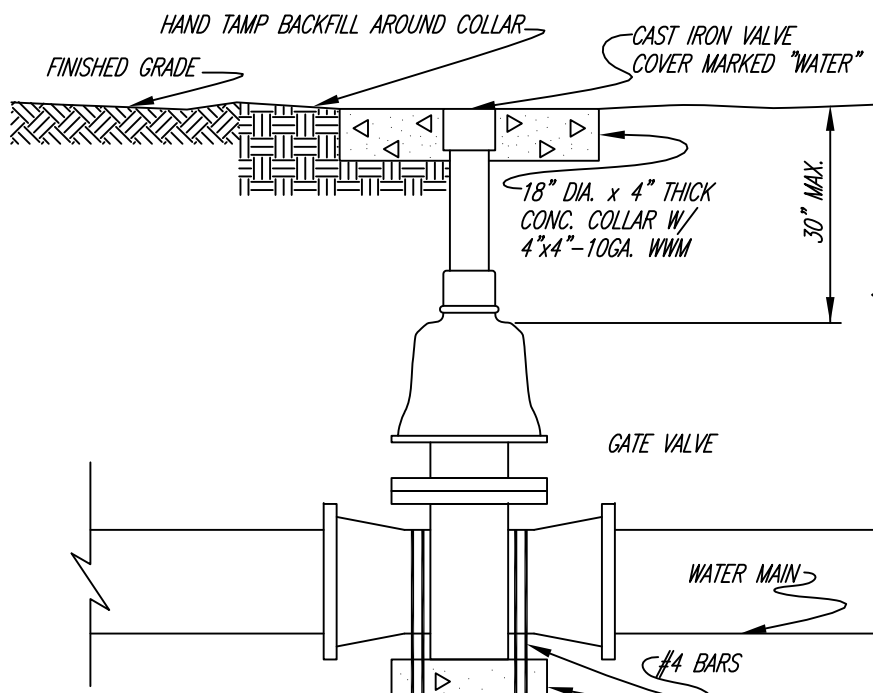


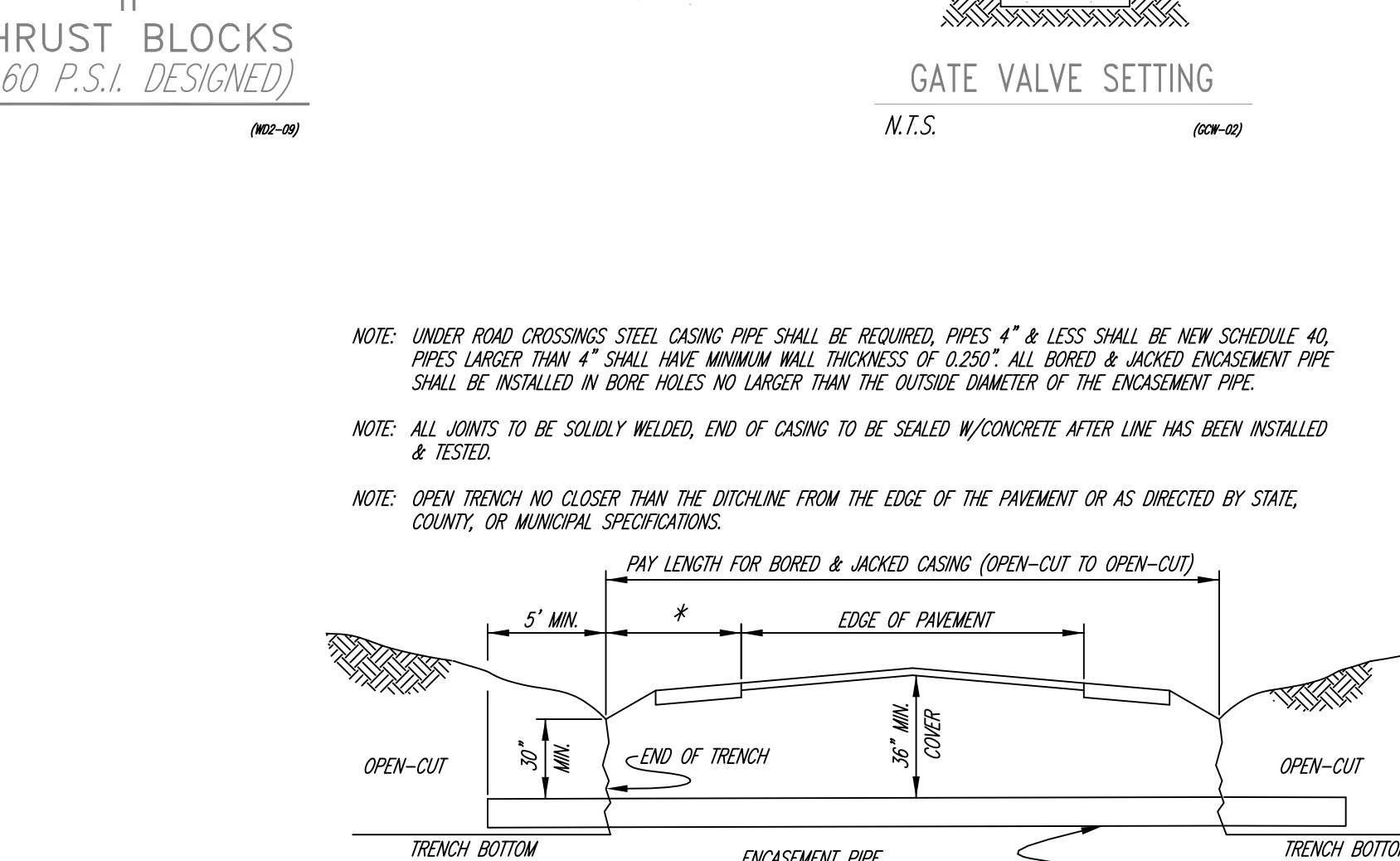
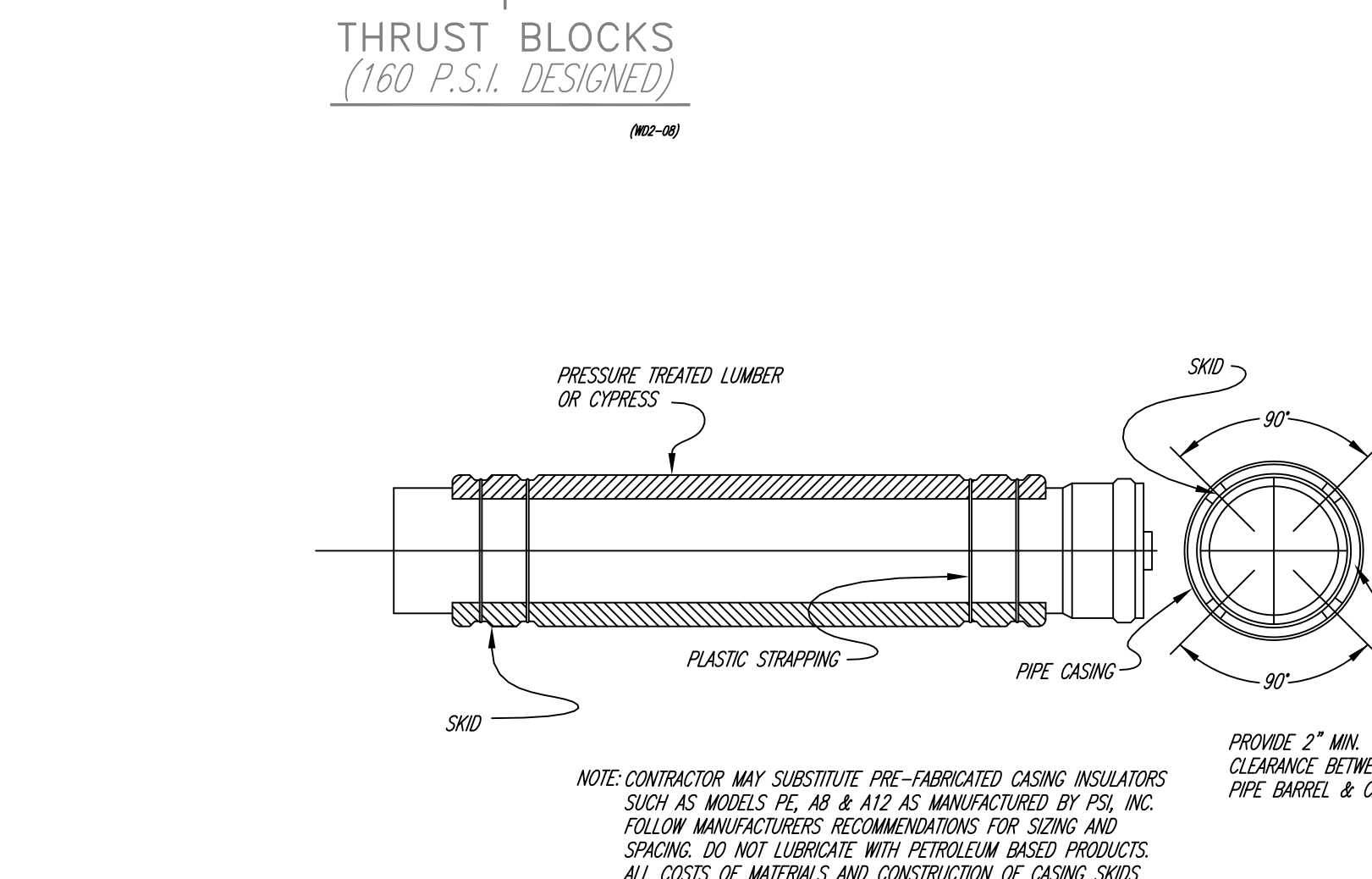
SOFT-SANDY CLAY SOIL (BEARING STRENGTH = 2,000#/FT. <sup>2</sup> )									
PIPE SIZE	BEARING AREA	90° BEND		45° BEND		TEE, GATE VALVE & DEADEND		70°	
		70°	45°	70°	45°	70°	45°	70°	45°
1 1/2"	0.33 FT <sup>2</sup>	12"	4"	0.18 FT <sup>2</sup>	8"	4"	0.24 FT <sup>2</sup>	9"	4"
2"	0.52 FT <sup>2</sup>	12"	7"	0.28 FT <sup>2</sup>	12"	4"	0.37 FT <sup>2</sup>	12"	5"
2 1/2"	0.75 FT <sup>2</sup>	12"	9"	0.41 FT <sup>2</sup>	12"	5"	0.53 FT <sup>2</sup>	12"	7"
3"	1.12 FT <sup>2</sup>	18"	9"	0.61 FT <sup>2</sup>	12"	8"	0.79 FT <sup>2</sup>	18"	7"
4"	1.84 FT <sup>2</sup>	24"	12"	1.00 FT <sup>2</sup>	18"	8"	1.30 FT <sup>2</sup>	24"	8"
6"	3.96 FT <sup>2</sup>	36"	16"	2.14 FT <sup>2</sup>	26"	12"	2.80 FT <sup>2</sup>	30"	14"
8"	6.70 FT <sup>2</sup>	54"	18"	3.63 FT <sup>2</sup>	30"	18"	4.74 FT <sup>2</sup>	36"	19"
10"	10.00 FT <sup>2</sup>	60"	24"	5.41 FT <sup>2</sup>	44"	18"	7.07 FT <sup>2</sup>	43"	24"
12"	13.69 FT <sup>2</sup>	60"	33"	7.41 FT <sup>2</sup>	36"	30"	9.68 FT <sup>2</sup>	47"	30"
14"	16.35 FT <sup>2</sup>	66"	36"	9.35 FT <sup>2</sup>	40"	34"	12.20 FT <sup>2</sup>	60"	30"
16"	19.55 FT <sup>2</sup>	72"	40"	11.35 FT <sup>2</sup>	60"	28"	14.77 FT <sup>2</sup>	60"	36"

SOLID-SAND & GRAVEL CEMENTED W/CLAY (BEARING STRENGTH = 4,000#/FT. <sup>2</sup> )									
PIPE SIZE	BEARING AREA	90° BEND		45° BEND		TEE, GATE VALVE & DEADEND		70°	
		70°	45°	70°	45°	70°	45°	70°	45°
1 1/2"	0.17 FT <sup>2</sup>	6"	4"	0.90 FT <sup>2</sup>	4"	4"	0.12 FT <sup>2</sup>	5"	4"
2"	0.26 FT <sup>2</sup>	10"	4"	0.14 FT <sup>2</sup>	6"	4"	0.18 FT <sup>2</sup>	7"	4"
2 1/2"	0.23 FT <sup>2</sup>	12"	5"	0.20 FT <sup>2</sup>	8"	4"	0.26 FT <sup>2</sup>	10"	4"
3"	0.56 FT <sup>2</sup>	12"	7"	0.30 FT <sup>2</sup>	8"	6"	0.40 FT <sup>2</sup>	10"	6"
4"	0.92 FT <sup>2</sup>	18"	8"	0.50 FT <sup>2</sup>	9"	8"	0.65 FT <sup>2</sup>	12"	8"
6"	1.98 FT <sup>2</sup>	24"	12"	1.07 FT <sup>2</sup>	16"	10"	1.40 FT <sup>2</sup>	18"	12"
8"	3.35 FT <sup>2</sup>	42"	12"	1.82 FT <sup>2</sup>	22"	12"	2.37 FT <sup>2</sup>	29"	12"
10"	5.00 FT <sup>2</sup>	40"	18"	2.71 FT <sup>2</sup>	22"	18"	3.54 FT <sup>2</sup>	29"	18"
12"	6.85 FT <sup>2</sup>	42"	24"	3.71 FT <sup>2</sup>	30"	18"	4.84 FT <sup>2</sup>	30"	24"
14"	8.80 FT <sup>2</sup>	43"	30"	4.67 FT <sup>2</sup>	36"	19"	6.16 FT <sup>2</sup>	36"	26"
16"	11.20 FT <sup>2</sup>	62"	27"	5.66 FT <sup>2</sup>	44"	19"	7.50 FT <sup>2</sup>	36"	30"



CARRIER PIPE NOMINAL SIZE	MINIMUM I.D. OF CASING PIPE FOR:		A.B.S. CEM. or A.B.S.
	PLASTIC BBS or COIL	C.I. or D.I. BBS	
3/4"	1-1/4"		
1" & 1-1/4"	2"		
1-1/2"	3"		
2"	3-1/2"		
2-1/2"	4"		
3"	5"	8"	10"
4"	8"	8"	10"
5"	8"		
6"	10"	12"	12"
8"	12"	13-1/2"	15-1/2"
10"	15-1/2"	15-1/2"	17-1/2"
12"	17-1/2"	17-1/2"	19-1/2"
14"		19-1/2"	21-1/2"
16"		21-1/2"	23-1/2"
18"		25-1/2"	27-1/2"

CARRIER PIPE NOMINAL SIZE	MINIMUM I.D. OF CASING PIPE FOR:		A.B.S. CEM. or A.B.S.	MAX. SKID SUPPORT SPACING, L.F. APART
	PLASTIC BBS or COIL	C.I. or D.I. BBS		
3/4"	1-1/4"			
1" & 1-1/4"	2"			
1-1/2"	3"			
2"	3-1/2"			
2-1/2"	4"			
3"	5"	8"	10"	
4"	8"	8"	10"	4.7'
5"	8"			5.5'
6"	10"	12"	12"	6.3'
8"	12"	13-1/2"	15-1/2"	7.4'
10"	15-1/2"	15-1/2"	17-1/2"	8.5'
12"	17-1/2"	17-1/2"	19-1/2"	9.6'
14"		19-1/2"	21-1/2"	10.0'
16"		21-1/2"	23-1/2"	11.0'
18"		25-1/2"	27-1/2"	12.0'

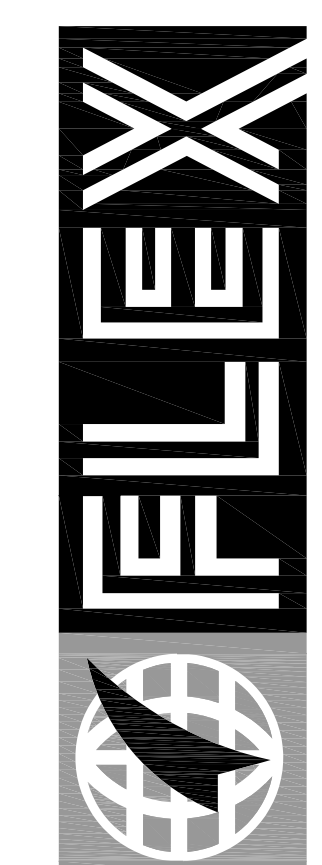


WATERLINE CASING PIPE SCHEDULE (M01-01)

WATERLINE CASING PIPE SCHEDULE (M01-02)

CARRIER PIPE SKIDS FOR ROAD BORES (M01-03)

SECTION VIEW OF ROAD CROSSING (M01-04)



**FLEX FILMS (U.S.A.) INC.**  
1221 NORTH BLACK BRANCH ROAD  
ELIZABETHTOWN, KENTUCKY 42702

DATE	REVISION	BY

PROJECT NO. 2064-25
DESIGNED BY G.A.R.
DRAWN BY J.R.M.
CHECKED BY G.A.R.
REVIEWED BY G.A.R.
DATE JUNE 2011
SCALE AS SHOWN

**nsc**  
OF KENTUCKY, INC.  
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Lexington, KY 40503  
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Fax: (859) 223-2607

**DRAWING NO.**  
UFL-L12  
C-112.2

**WATERLINE DETAILS**

JUL 29 X:\2064-25 FLEX FILM - ELIZABETHTOWN T.J. PATTERSON INDUSTRIAL PARK\ C-112, C-122.1, C-122.2 SITE WATERLINE PLAN AND DETAILS.